consumers, and by professional contractors until such time as improved formulations are developed and available to end-users.

Cost. Asbestos-free patching compound formulations may require more time to use. This would tend to increase the direct labor costs of residential and other construction and renovation. The expected increase is between 10 and 25 percent. The Commission estimates that the annual labor cost of drywall finishing in these consumer environments is on the order of \$1 billion. The use of nonasbestos patching compound formulations in all applications may increase this cost by \$50-\$125 million, assuming that roughly half the current labor costs (i.e., that portion now associated with the use of asbestos formulations) are affected by the 10-25 percent increase. The burden of this cost is expected to fall directly on owners of existing homes who may engage in some renovation, and on purchasers of newly-renovated or newlyconstructed homes. These increased costs are expected to diminish over time as formulations improve and as applicators become more accustomed to using nonasbestos formulations. The use of asbestos substitutes may also lead to cost increases in the manufacture of patching compounds. The Commission estimates this cost, which may vary widely from firm to firm, at an average of 5-15 percent. This is made up primarily of increased costs of raw materials and of formulation research and development. It is expected that the price of many patching compounds may rise as a result. Producers, distributors, and retailers of patching compounds may also have to incur costs associated with the disposal of products in inventory. The Commission estimates that the wholesale value of manufacturers' and distributors' inventories at the time the ban becomes effective will be approximately \$15 million. These costs may be reflected in the prices charged for asbestos-free patching compound formulations, and in the prices of other drywall and paint products. It appears that, because of competitive pressure from asbestoscontaining compounds, producers of asbestos-free formulations have not yet passed on to purchasers their increased costs. If the increased production costs

of asbestos-free formulations can be passed on completely as a result of the ban, the total annual price effect for the year following the issuance of the ban may be \$10-\$60 million. The magnitude of this effect may be reduced significantly in successive years following the issuance of the ban as producers' development costs are amortized, as raw materials become more widely available, and as price competition is strengthened because of market pressure and economies of sale associated with production.

(3) Availability. The supply of asbestos substitutes, particularly attapulgite clay and relatively uncontaminated talc, for use in the manufacture of patching compounds may be insufficient to meet the short-run demand which is expected to be stimulated by the promulgation of the ban. Further, many small producers probably lack the technical capability to reformulate their products, and may be forced to cease production, at least until formulations of satisfactory cost and performance are developed. This may affect some professional contractors. In the short run, consumers may be indirectly affected by delays in drywall finishing and building completion.

(d) Any means of achieving the objective of the ban while minimizing adverse effects on competition or disruption or dislocation of manufacturing and other commercial practices consistent with the public health and safety. The adverse effects of the ban on patching compounds containing asbestos is reduced by limiting the ban to intentionally added asbestos. Other alternatives such as limiting the scope of the ban only to products purchased and used by consumers or to issuing a ban with a later effective date, were considered by the Commission. However, none was found that would cause less disruption or dislocation of manufacturing and other commercial practices, consistent with public health and safety.

PART 1305—BAN OF ARTIFICIAL EMBERIZING MATERIALS (ASH AND EMBERS) CONTAINING RESPIRABLE FREE-FORM ASBESTOS

Sec

1305.1 Scope and application.

1305.2 Purpose

1305.3 Definitions

1305.4 Artificial fireplace ash and embers as banned hazardous products.

1305.5 Findings.

AUTHORITY: Secs. 8, 9, 30(d), Pub. L. 92-573, as amended, Pub. L. 94-284; 86 Stat. 1215-17, as amended, 90 Stat. 506 (15 U.S.C. 2057, 2058).

SOURCE: 42 FR 63364, Dec. 15, 1977, unless otherwise noted.

§1305.1 Scope and application.

In this part 1305 the Consumer Product Safety Commission declares that artificial emberizing materials (ash and embers) containing respirable freeform asbestos generally packaged in an emberizing kit for use in fireplaces, and designed for use in such a manner that the asbestos fibers can become airborne under reasonably foreseeable conditions of use are banned hazardous products under sections 8 and 9 of the Consumer Product Safety Act (CPSA) (15 U.S.C. 2057 and 2058). This ban applies to artificial emberizing materials available in separate kits or with artificial fireplace logs for use in fireplaces and sprinkled or coated by consumers on the artificial logs to simulate live embers and ashes and give a glowing appearance when subjected to high temperatures. Bags of material containing asbestos that are sold separately to be sprinkled on and under artificial logs to simulate burning and glowing ashes also come within the scope of this ban.

§1305.2 Purpose.

The purpose of this rule is to ban artificial emberizing materials containing respirable free-form asbestos. These products present an unreasonable risk of injury due to inhalation of fibers which increase the risk of developing cancers such as lung cancer and mesothelioma, diseases which have been demonstrated to be caused by exposure to asbestos fibers.

§1305.3 Definitions.

(a) The definitions in section 3 of the Consumer Product Safety Act (15 U.S.C. 2052) apply to this part 1305.

(b) Asbestos means a group of mineral fibers composed of hydrated silicates, oxygen, hydrogen and other elements such as sodium, iron, magnesium and calcium in diverse combinations and are: Amosite, chrysotile, crocidolite, anthophyllite asbestos, actinolite asbestos, and tremolite asbestos.

- (c) Free-form asbestos is that which is not bound, woven, or otherwise "locked-in" to a product by resins or other bonding agents, or those from which fibers can readily become airborne with any reasonably foreseeable use.
- (d) Emberizing materials means an asbestos-containing material generally packed in an "emberizing" kit to be placed under artificial logs in gas-burning fireplace systems or in artificial fireplaces for decorative purposes. The product is also glued to artificial logs, either at a factory or by a consumer using an emberizing kit. (Synthetic logs manufactured of cellulostic products which are consumed by flames are not included in this definition. Electric artificial logs and artificial ash beds used in electric fireplaces, which do not contain respirable free-form asbestos are not included in this definition.)

§1305.4 Artificial fireplace ash and embers as banned hazardous products

On the basis that airborne asbestos fibers present the hazards of cancer such as lung cancer and mesothelioma to the public, artificial fireplace ash and embers containings respirable freeform asbestos are banned hazardous products.

§ 1305.5 Findings.

(a) The degree and nature of the risk of *injury.* The Commission finds that the risk of injury which this regulation is designed to eliminate or reduce is from cancer, including lung cancer and mesothelioma. Measurements are not available of the amounts of asbestos in the air from asbestos-containing emberizing materials in homes. However, it appears that the amount of airborne asbestos in such homes would increase when air currents in the home are created by downdrafts from a fireplace chimney or other activities that stir air in any room. Since emberizing materials may contain up to 50 percent asbestos, which if not permanently bound into artificial fireplace logs

would be in respirable form, the risk associated with emberizing materials is considerable, especially since it continues to exist 24 hours a day.

(b) Products subject to the ban. Artificial emberizing materials are decorative simulated ashes or embers, used in certain gas-buring fireplace systems, which glow to give the appearance of real burning embers. The material is sprinkled on or glued to gas logs, or

sprinkled on fireplace floors.

- (c) Need of the public for the products and effects of the rule on their utility, cost, and availability. Artificial fireplace emberizing material serves a strictly decorative purpose and does not materially affect the actual performance of the fireplace gas system in terms of its ability to provide heat. A certain degree of aesthetic desirability exists, however, since the product "system" itself (the gas log, ashes, and embers) is intended to simulate burning wooden logs. Gas logs may be sold with artificial emberizing material attached at the factory (the log commonly referred to as being "frosted"), or with the "embers" in a separate kit, often mixed with simulated "ashes." Virtually all gas logs are either frosted or packaged with an emberizing kit; however, the majority of gas logs produced in 1977 were packaged with non-asbestos-containing emberizing kits. The Commission estimates annual sales of artificial gas logs at approximately 100,000 units. Some 25,000-30,000 of these would be subject to the ban. Approximately 100,000 gas logs frosted or treated by consumers with asbestos are estimated to be in existence. The Commission believes that the majority of gas logs are sold with emberizing kits; this gives the consumer a choice as to whether or not to use the artificial embers and ashes.
- (1) Utility. Manufacturers of artificial gas log emberizing material are currently using four substitutes for asbestos in their products: vermiculite, rock wool, mica, and a synthetic fiber. None of the four is claimed to be as aesthetically effective as asbestos. Thus, the utility derived by consumers from some gas-burning fireplace systems may be adversely affected.

(2) Cost. No effect on the overall price level of gas logs is anticipated as a re-

sult of the ban. The average price of emberizing kits may rise somewhat; the Commission estimates the total price effect of the ban on consumers at under \$25,000.

- (3) Availability. The Commission believes that all producers of artificial emberizing material will have eliminated asbestos from their products by the time the ban becomes effective. No significant impact on the availability of asbestos substitutes to producers nor on the availability of gas logs or emberizing kits to retail dealers and consumers is expected as a result of the ban.
- (d) Any means of achieving the objective of the ban while minimizing adverse effects on competition or disruption or dislocation of manufacturing and other commercial practices consistent with the public health and safety. The Commission believes that there will be minimal disruption to the market for artificial emberizing materials as a consequence of the ban and that no further reduction in adverse effects is feasible.

PART 1306—BAN OF HAZARDOUS LAWN DARTS

Sec.

1306.1 Scope and application.

1306.2 Purpose.

1306.3 Banned hazardous products.

1306.4 Findings.

1306.5 Effective date.

AUTHORITY: 15 U.S.C. 2058-2060.

SOURCE: 53 FR 46839, Nov. 18, 1988, unless otherwise noted.

§1306.1 Scope and application.

- (a) In this part 1306, the Commission declares lawn darts, described in $\S 1306.3$, to be banned hazardous products.
- (b) Lawn darts and similar products that are articles intended for use by children are not covered by this ban, but are banned under the Federal Hazardous Substances Act at 16 CFR 1500.18(a)(4).

§1306.2 Purpose.

The purpose of this rule is to prohibit the sale of lawn darts, which have been found to present an unreasonable risk of skull puncture injuries to children.